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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BYUNG J. CHOI and S.V. SREENIVASAN

Appeal 2009-009388
Application 09/934,248
Technology Center 1700

Before BRADLEY R. GARRIS, CATHERINE Q. TIMM, and
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

TIMM, *Administrative Patent Judge*.

DECISION ON APPEAL¹

I. STATEMENT OF CASE

Appellants appeal under 35 U.S.C. § 134 from the Examiner's decision to reject claims 1-3, 5, 6, 8, 11-16, 31, 32, 35, 37-42, 45-49, 212-221, and 223-225. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE" (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

The invention is directed to an apparatus such as the linkage 1800 shown in Figure 18, reproduced below, which is used to position an object 1801:

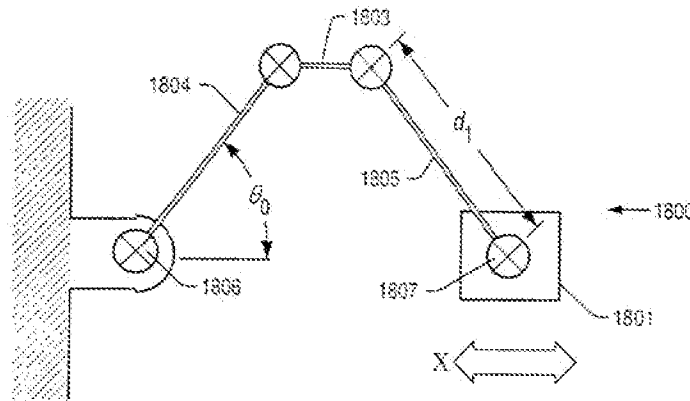


FIG. 18

Figure 18 shows a schematic of a portion of a basic linkage 1800.

The structure includes two end joints (1806 and 1807) coupled to links 1803, 1804, and 1805 (elongated members) through intermediate flexure joints, shown in Figure 18 as X's within circles, between links. (Fig. 18; Spec. 30:26-29.)

Claim 1 is illustrative of the invention on appeal:

1. An apparatus for positioning of an object in at least one plane comprising:

a holding member configured to hold the object to be positioned; and

a positioning system including a linkage coupled to the holding member, defining a first joint thereat, with said first joint being coupled to a second joint through a plurality of elongated members and a flexure joint, with said plurality of elongated members being coupled to said flexure joint to move

at substantially the same rate and in opposite directions to facilitate movement of said holding member along first and second axes, with the first axis extending transversely to the second axis.

The Examiner maintains, and Appellants seek review of, the following rejections:

1. The rejection of claims 3, 38, and 219 under 35 U.S.C. § 112, ¶ 2; and
2. The rejection of claims 1-3, 5-6, 8, 11-16, 31-32, 35, 37-42, 45-49, 212-221, and 223-225 under 35 U.S.C. § 103(a) as being unpatentable over the Stewart article² in view of the Hogan article.³

II. DISCUSSION

A. INDEFINITENESS

The Examiner rejects claims 3, 38, and 219 as indefinite under 35 U.S.C. § 112, ¶ 2. Claims 3, 38, and 219 require that the apparatus of the independent claim upon which each depends be further subject to a pre-load. The Examiner states that “[c]laims 3, 38 and 219 are indefinite as failing to further limit the apparatus in a structural sense.” (Ans. 3). According to the Examiner, “[t]he aspect of subjecting the elongated members to a pre-load constitutes a manipulative step that would limit a process claim but not an apparatus claim.” (*Id.*)

We agree with Appellants that there is no per se requirement within 35 U.S.C. § 112, ¶ 2 that a claim dependent upon an apparatus claim

² D. Stewart, *A Platform with Six Degrees of Freedom*, Proc. Instn. Mech. Engrs., Vol. 180, Pt 1, No. 15, pp. 371-78 (1965-66).

³ N. Hogan, *Impedance Control: An Approach to Manipulation*, J. of Dynamic Sys. Measurement, and Control, Vol. 107, pp. 1-7 (Mar. 1985).

structurally limit it further (Br. 3). *See In re Swinehart*, 439 F.2d 210, 213 (CCPA) (“Functional” language, in and of itself, does not render a claim indefinite). What the Examiner must establish is that the claims do not reasonably apprise one of ordinary skill in the art of the metes and bounds of the claim. *See Miles Lab., Inc. v. Shandon, Inc.*, 997 F.2d 870, 875 (Fed. Cir. 1993) (“If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, § 112 demands no more.”). Because the Examiner performed no analysis with regard to the question of whether the claims reasonably apprise one of ordinary skill in the art of their scope, we cannot say that the Examiner has established that the claims are indefinite.

B. OBVIOUSNESS

Turning to the obviousness rejection, we determine that the Examiner has read independent claims 1 and 31 too broadly. For instance, the Examiner reads claim 1 as encompassing structures having only two joints wherein the “first joint” is the claimed “flexure joint.” (Ans. 7). However, we agree with Appellants that the claims require three joints, a “first joint,” a “second joint,” and a “flexure joint” located between the first and second joints (Br. 4-5; *see also* claims 1 and 31).

Claim 1 requires a “first joint being coupled to a second joint through a plurality of elongated members and a flexure joint.” In other words, coupling between the first and second joints is through not only the plurality of elongated members but also through a flexure joint.

The Examiner makes no finding that either Stewart or Hogan or their combination teaches or suggests a structure including a first joint coupled to

a second joint through a flexure joint as required by claim 1 and those claims dependent from claim 1. The rejection of claim 31 and claims dependent thereon suffers from the same defect.

Turning to the only other independent claim, claim 212, this claim requires:

212. An apparatus for positioning of an object in a plane, said apparatus comprising:

a holding member retaining said object;

a linkage coupled to the holding member, defining a first joint thereat, with said first joint being coupled to ground through a plurality of elongated members and a flexure joint;
and

a motive device coupled to the holding member for moving the holding member, with said plurality of elongated members being coupled to said flexure joint to move in opposite directions to facilitate movement of said holding member along an axis in response to movement of said holding member by said motive device.

In rejecting this claim, the Examiner states that “[i]nstant claim 212 is also considered to be obvious for reasons already advance [sic].” (Ans. 6.) In responding to Appellants’ contention that the rejection is inadequate because the Examiner has not specifically addressed all the limitations of the claim (Br. 9), the Examiner states that claim 212 would be rejected for the reasons set forth concerning claim 1 and claim 11 (Ans. 8). But to reject claim 11, the Examiner merely states that “Stewart uses hydraulic jacks as motive devices coupled to the holding member” (Ans. 5). This does not establish that a structure including the required first joint and flexure joint located as claimed and with elongated members coupled to move as required by claim 212 would have been obvious to one of ordinary skill in the art.

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The Examiner has failed to provide the necessary rationale required to support the rejection.

III. CONCLUSION

On the record before us, we do not sustain the rejections maintained by the Examiner.

IV. DECISION

The decision of the Examiner is REVERSED.

REVERSED

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